Program Name

Decisional

SERB , E-SERB or Final Report

Date

Briefer / Code

BLUF

(*Program name*) is System Under Test (SUT)

SUT

- Operationally Effective & Suitable
- Recommend Fleet Introduction

SoS

- Not Operationally Effective
- Operationally Suitable

Deficiencies

- 1 SUT (Blue Sheet - Minor)
- 2 SOS (Gold Sheets – Major 1 & Minor)

Example – update as necessary

COI Resolution

COI	QRA 29 Sep 08	IT-C1 (OA) 20 Jan 11	OT-C1
Effectiveness COIs			
STW	Yellow	Yellow	**Resolved (SAT)**
AMW	Yellow	Yellow	**Resolved (SAT)**
Suitability COIs			
Reliability	Green	Green	**Resolved (SAT)**
Maintainability	Not Assessed	White	**Resolved (UNSAT)**
Availability	Not Required	Not Required	**Not Required**
Logistic Supportability	Not Assessed	White	**Resolved (SAT)**
Compatibility	Green	Green	**Resolved (SAT)**
Interoperability	Green	Green	**Resolved (SAT)**
Training	Not Assessed	Green	**Resolved (SAT)**
Human Factors	Green	Green	**Resolved (SAT)**
Safety	Green	Green	**Resolved (SAT)**
Documentation	Not Assessed	Green	**Resolved (SAT)**

Red – High level of risk identified.
Yellow – Moderate level of risk identified.
Green - Little or no risk identified.
White – Not evaluated or assessed.
QRA – Quick Reaction Assessment
OA – Operational Assessment
STW – Strike Warfare
AMW – Amphibious Warfare

Example – update as necessary

Basic Information

- ACAT Level
- DOT&E Oversight (DOT&E action officer)
- Testing Stage (ie. Pre-Milestone C)
- PMA-XXX
- MDA
- Prime Contractor
- Operational Test Activity (ie. VX-1)
- If a Joint Program, who is the Lead OTA?
- Other pertinent programmatic information
- Participation in IT?

Fill in as appropriate

SUT Description

- (*program name*) consists of:
  - 3 x Air Vehicles (AV)
  - Modular Mission Payload (MMP)
  - Ground Control Station (GCS)
  - Data Link Suite (DLS)
    - Ku-band TCDL for primary C2 and payload data (PDL)
    - UHF radios for secondary C2 (SDL)
  - 2 x UAV Common Automatic Recovery System (UCARS)

Example – update as necessary

SUT CONOPS

- Overview

- Provide an overview of the SUT Concept of Operations, as needed, to help set the context for Blue & Gold sheets and better form the basis for mission relation.

SoS Description

The (*program name*) SoS consists of:

- **Provide a description of the SoS components.**
- **Use of pictures (e.g. OV-1) with boundaries separating the SUT and SoS are encouraged.**

Scope of Test

- DT-C1 (Phase II) (65 sorties / 94.9 flt hrs):
  - Ground Test - 141.5 hours
  - Flight Test – 94.9 hours / 65 sorties
- OT-C1 (16 sorties / 25.3 flt hrs):
  - Proficiency – 7.2 hours / 5 Sorties
  - Flight Test – 18.1 hours / 11 sorties
  - 8 Mission-Based: CAS, AR, SCAR, FAC(A), VR, AI, TRAP, & DACM
  - Data Collection: Qualitative from increased SA to weaponeering
- Modeling and Simulation was not used

- **Provide an overview of test operations**
- **Example – update as necessary**

Limitations To Test

- **Severe:**
- **Major:**
- **Minor:**

- List the limitations to test by category. Identify in **RED** any limitations not in the signed test plan. Remove the text box at the bottom of the slide if not applicable.
- For each limitation, include:
  - Description of the limitation
  - Description of the impact of the limitation to include:
    - What information was not obtained or learned?
    - What is the impact to COI resolution?
  - What, if any, mitigation was used?
  - What COI(s) is impacted?

Limitations in **RED** were discovered in test and are not in the test plan

Quantitative Results

Major Quantitative Test Results			
Characteristic	Parameter	Result	Threshold
Deep Water Target	T_{EFF} (KPP) Deep Water Target	0.89	≥0.50
Shallow Water Target	T_{EFF} (KPP) Shallow Water Target	0.44	≥0.50
Arctic Target	T_{EFF} (KPP) Arctic Target	0.83	>0.50
Reliability	R_{XXX} (KPP) $MTBOMF_{TIC}$	0.93 234 hr	≥0.90 ≥300 hr
Maintainability BIT	$MCMTOMF_{TIC}$ $MaxCMTOMF_{TIC}$ MRT_{TIC} P_{CD} (TIC) P_{CFI} (TIC) FA (TIC)	2.5 hr 3.5 hr 4.6 min 0.98 0.92 0.24	≤4 hr ≤7 hr ≤5 min ≥0.95 ≥0.90 ≤0.25
Availability	A_0 (TIC)	0.96	≥0.93

Pull table 1-1 from the draft final report with quantitative results (approved results from the AWG)

Qualitative Results

Major Qualitative Test Results			
Characteristic	**Parameter**	**Result**	**Criterion**
Detect, ID, and Decontamination	Chemical Biological and Radiological Defense	SAT	N/A

Pull table 1-2 from the draft final report with quantitative results (approved results from the AWG)

COI Resolution

- Go to Briefing Book – COI by COI (E then S), review in following order:
  - COI Evaluation Criteria slides & discuss COI evaluation methodology
  - Review results paragraph and COI resolution
  - Blue and Gold Sheet in decreasing order (first Blue then Gold)

- For each COI, explain the critical thought leading to the draft COI resolution using the COI Evaluation Criteria slide from the Concept of Test brief
  - Link quantitative & qualitative results to the accomplishment of critical tasks.
  - What went well? Discuss improvements from the legacy system. How did the new capability improve mission performance?
  - What didn't go well? Which deficiencies/risks impacted COI resolution?
  - Summarize the "scales of justice" – how did the goods & others balance out?
- Review the COI Results paragraph. Does the paragraph capture the critical thought leading to the COI resolution?
- Review Blue and Gold sheets. If risks/deficiencies are re-characterized, review COI resolution to ensure the COI resolution is appropriate.

Change to "Assessment Criteria" for OAs & QRAs
USE ONE SLIDE FOR EACH COI

Evaluation Criteria
E-1 AW

AW-1 Prepare / Configure	AW-2 Search	AW-3 Detect	AW-4 Track	AW-5 ID	AW-6 Defend	AW-7 Engage	AW-8 Assess	AW-9 Post Mission Tasks

SUT AW Critical Measures		
Task Title	**Critical Measure**	
1.3.1 – Detect	M72	Detection Range
1.3.2 – Localize	M12	Localization Range (RV)
	M35	Time to Localize
1.4.2 – Track	M11 (KPP)	Positional Accuracy
	M15	Accuracy (course)
	M24	Accuracy (speed)

For each COI, pull this slide(s) from the Concept of Test (COT) brief. See the COT brief template for guidance on creating the slide if the COT brief is not available.

The key to evaluating the COI as a whole is the evaluation of associated critical tasks.

Overall SUT/SoS Recommendation

SUT:

- Operationally Effective
  - Air Warfare (AW), Amphibious Warfare (AMW), and Mobility (MOB) resolved as SAT
- Operationally Suitable
  - Availability, Logistic Supportability, Interoperability, and Training (Aircrew) resolved as SAT
  - Reliability resolved as UNSAT
- Fleet release recommended

SoS: Not Effective but Suitable

Example – update as necessary

Post Brief E-SERB Directed Actions

- OTD produce summary of directed actions for inclusion in routing sheet for final report
  - Summary sheet routed with report should specify action taken to include page and paragraph numbers modified

Backup Reference Slides

The following backup SERB reference slides must be included in the SERB/ESERB brief as follows:

- For EOA/OA reports, include Slides 17-25
- For IOT&E/FOT&E reports, include Slides 17-21 and 26

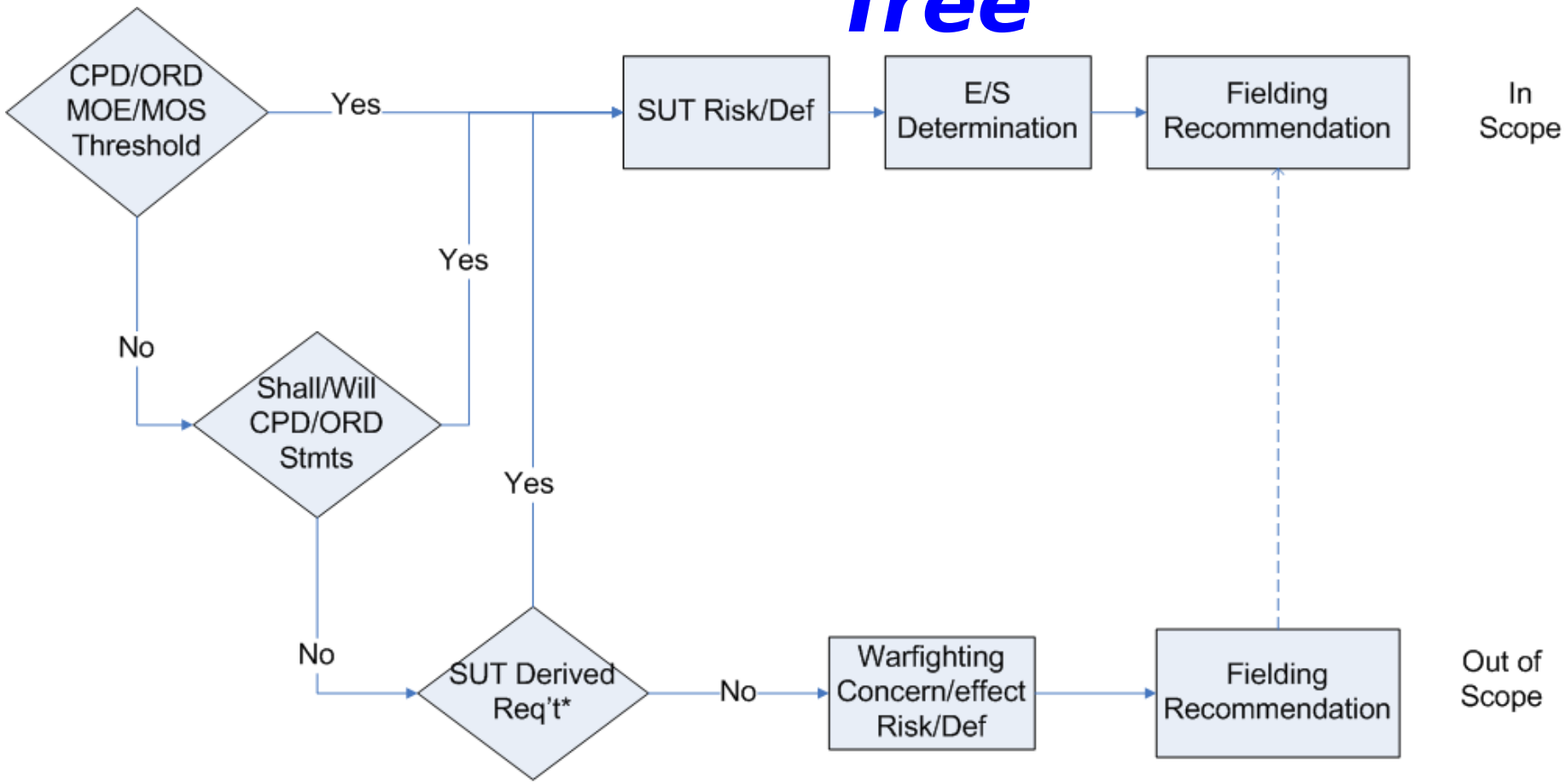
Specified Requirement Definition

- Specified Requirements. Specified requirements must be clearly documented in the system's capabilities document (Operational Requirements Document, Capabilities Production Document, Functional Requirements Document, etc.) and must be either:
  - A Measure of Effectiveness (MOE) and Measure of Suitability (MOS) performance threshold (not objective), or
  - Any capability stated as a shall or will statement

Derived Requirement Definition

- Derived Requirements. Derived requirements are any requirement not clearly stated in the system's capabilities document that are necessary for the effective delivery of the SUT capability as defined in the capabilities document, or are derived from:
  - Concept of operation
  - Office of the Secretary of Defense/Joint Chiefs of Staff/Secretary of the Navy/Office of the Chief of Naval Operations instructions
  - Threat documents
  - SUT specifications
  - System stakeholders agreed upon capability/function to be delivered (Navy Sponsor's intent for funded capability)

In/Out of Scope Decision Tree



* Necessary for effective operation of system as integrated on host platform

SoS Issues

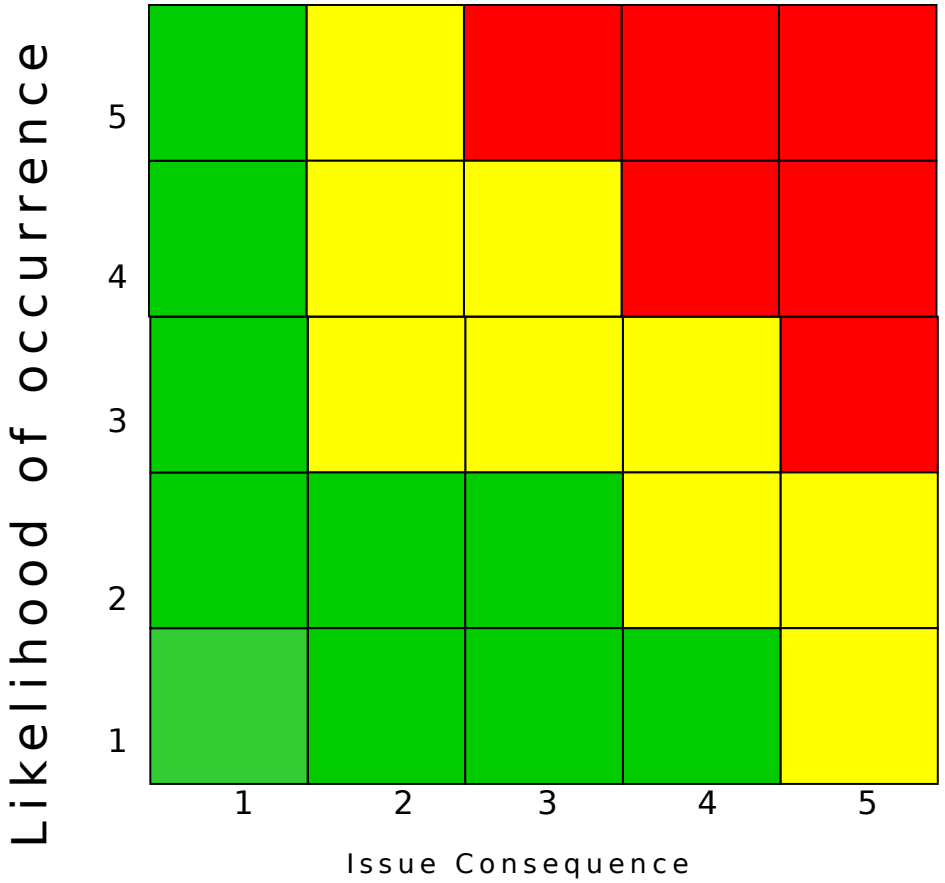
- Not used to evaluate SUT
- Other capabilities not already captured as a specific or derived requirement that are required for mission accomplishment
- Tied to mission
- Not clearly traceable to SUT
- Required for the full employment of the system in the intended joint system of systems operating environment

Deficiency Scoring Methodology (SUT)

- Only the SUT is considered for mission accomplishment and COI support
- Any workaround must be applied within the SUT
- Use of the SoS is not a valid workaround

Risk Matrix for Risk Assessments

(OAs, EOAs, QRAs and LOOs)



(EOA/OA) Mission Impact levels & Likelihood of Occurrence

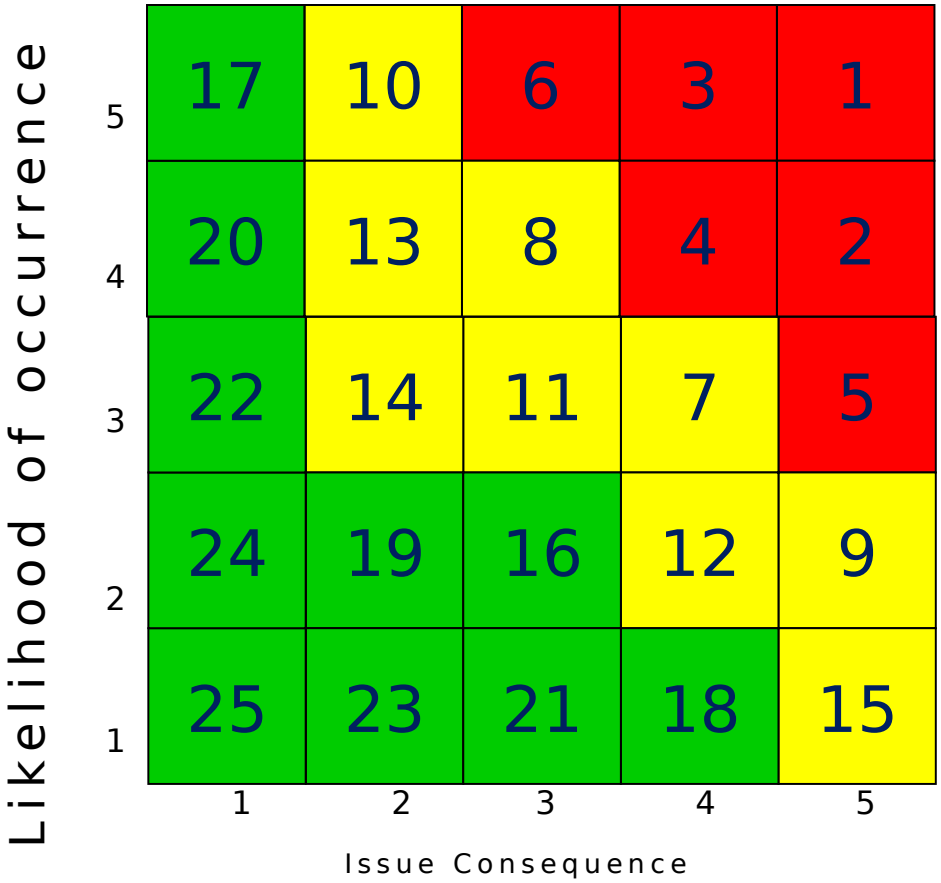
Table 8-2. Mission/COI Impact Classification		
EOA/OA Mission Impact Level	**Descriptor**	**Issue Definition**
1	Minor	Annoying system characteristic or nuisance that does not degrade operational/mission performance or suitability
2	Moderate	Issue that degrades (but does not prevent) operational/mission performance or suitability, but can be overcome with operator compensation/workaround
3	Significant	Issue that prevents operational/mission performance or suitability, but can be overcome with operator compensation/workaround
4	Serious	Issue that degrades (but does not prevent) operational/mission performance or suitability, no acceptable operator compensation/workaround
5	Critical	Issue that prevents operational/mission performance, cannot meet mission objectives or suitability threshold, with no workarounds

Table 8-3. Likelihood of Occurrence

Likelihood	Probability of Occurrence	Risk Matrix Level
Not Likely	~10%	**1**
Low Likelihood	~30%	2
Likely	~50%	3
Highly Likely	~70%	4
Near Certainty	~90%	5

Issue Priority for Risk Assessments

(OAs, EOAs, QRAs and LOOs)



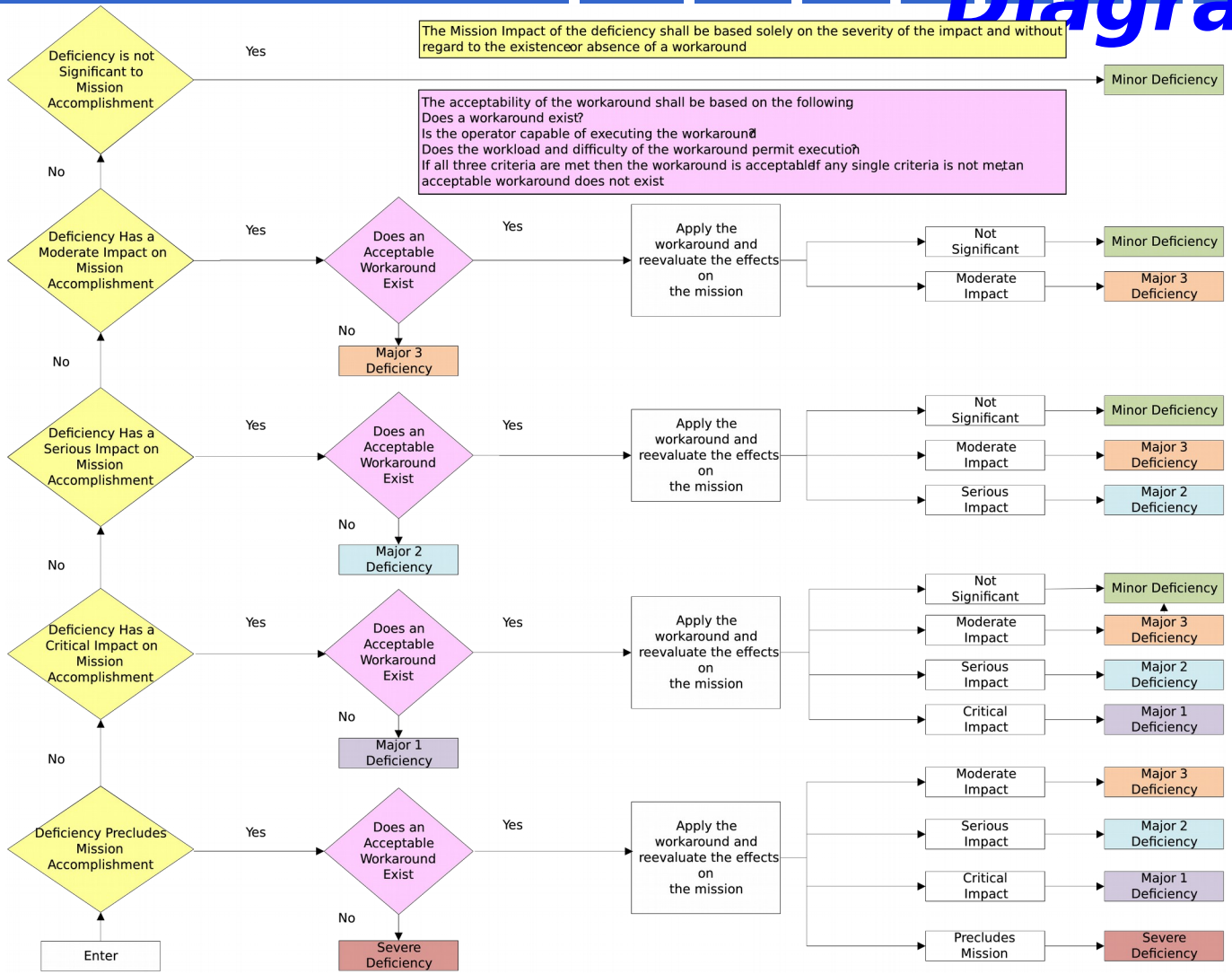
Deficiency Determination if Unmitigated (EOAs, OAs and LOOs)

Likelihood of occurrence	1	2	3	4	5
5	3/M	2/3	1/2	1/2	S/1
4	M	2/3	2/3	1/2	1/2
3	M	2/3	2/3	2/3	1/2
2	M	M	M	2/3	2/3
1	M	M	M	3/M	2/3

Issue Consequence

S-- Severe Deficiency
1-- Major 1 Deficiency
2-- Major 2 Deficiency
3-- Major 3 Deficiency
M-- Minor Deficiency

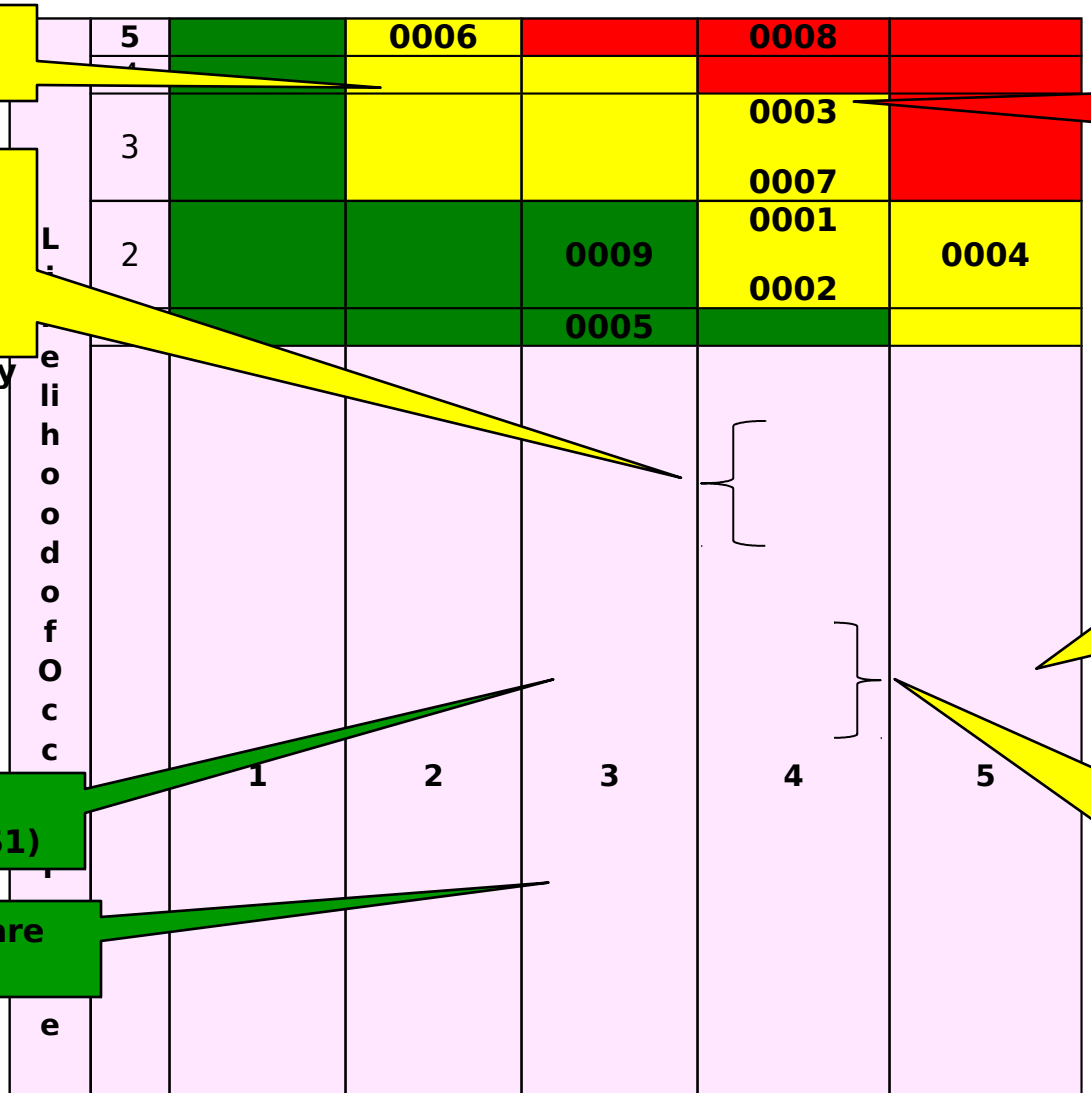
Deficiency Definition Flow Diagram


The Mission Impact of the deficiency shall be based solely on the severity of the impact and without regard to the existence or absence of a workaround
The acceptability of the workaround shall be based on the following
Does a workaround exist?
Is the operator capable of executing the workaround?
Does the workload and difficulty of the workaround permit execution?
If all three criteria are met then the workaround is acceptable. If any single criteria is not met, an acceptable workaround does not exist
Deficiency is not Significant to Mission Accomplishment
Yes
Minor Deficiency
No
Deficiency Has a Moderate Impact on Mission Accomplishment
Yes
Does an Acceptable Workaround Exist
Yes
Apply the workaround and reevaluate the effects on the mission
Not Significant
Minor Deficiency
Moderate Impact
Major 3 Deficiency
No
Major 3 Deficiency
No
Deficiency Has a Serious Impact on Mission Accomplishment
Yes
Does an Acceptable Workaround Exist
Yes
Apply the workaround and reevaluate the effects on the mission
Not Significant
Minor Deficiency
Moderate Impact
Major 3 Deficiency
Serious Impact
Major 2 Deficiency
No
Major 2 Deficiency
No
Deficiency Has a Critical Impact on Mission Accomplishment
Yes
Does an Acceptable Workaround Exist
Yes
Apply the workaround and reevaluate the effects on the mission
Not Significant
Minor Deficiency
Moderate Impact
Major 3 Deficiency
Serious Impact
Major 2 Deficiency
Critical Impact
Major 1 Deficiency
No
Major 1 Deficiency
No
Deficiency Precludes Mission Accomplishment
Yes
Does an Acceptable Workaround Exist
Yes
Apply the workaround and reevaluate the effects on the mission
Moderate Impact
Major 3 Deficiency
Serious Impact
Major 2 Deficiency
Critical Impact
Major 1 Deficiency
Precludes Mission
Severe Deficiency
No
Severe Deficiency
Enter

Backup Slides

The following backup slides are a collection of best practice example slides to be used as desired/needed. In general, these would be added as back-up slides, if needed, to focus the discussion on the risks and their relationship to COI resolution and the collective COIs relationship to E/S calls.

Risk Roundup



0006 – Mission Planner Software Anomalies (E1)

0008 – Mission File size exceeds SharePoint limits (E1)

0003 – Pod locks up during operation (S1)

0007 – MFHBOMF rate and Reliability (S1)

0004 – No pilot feedback for degraded amplifiers (E1)

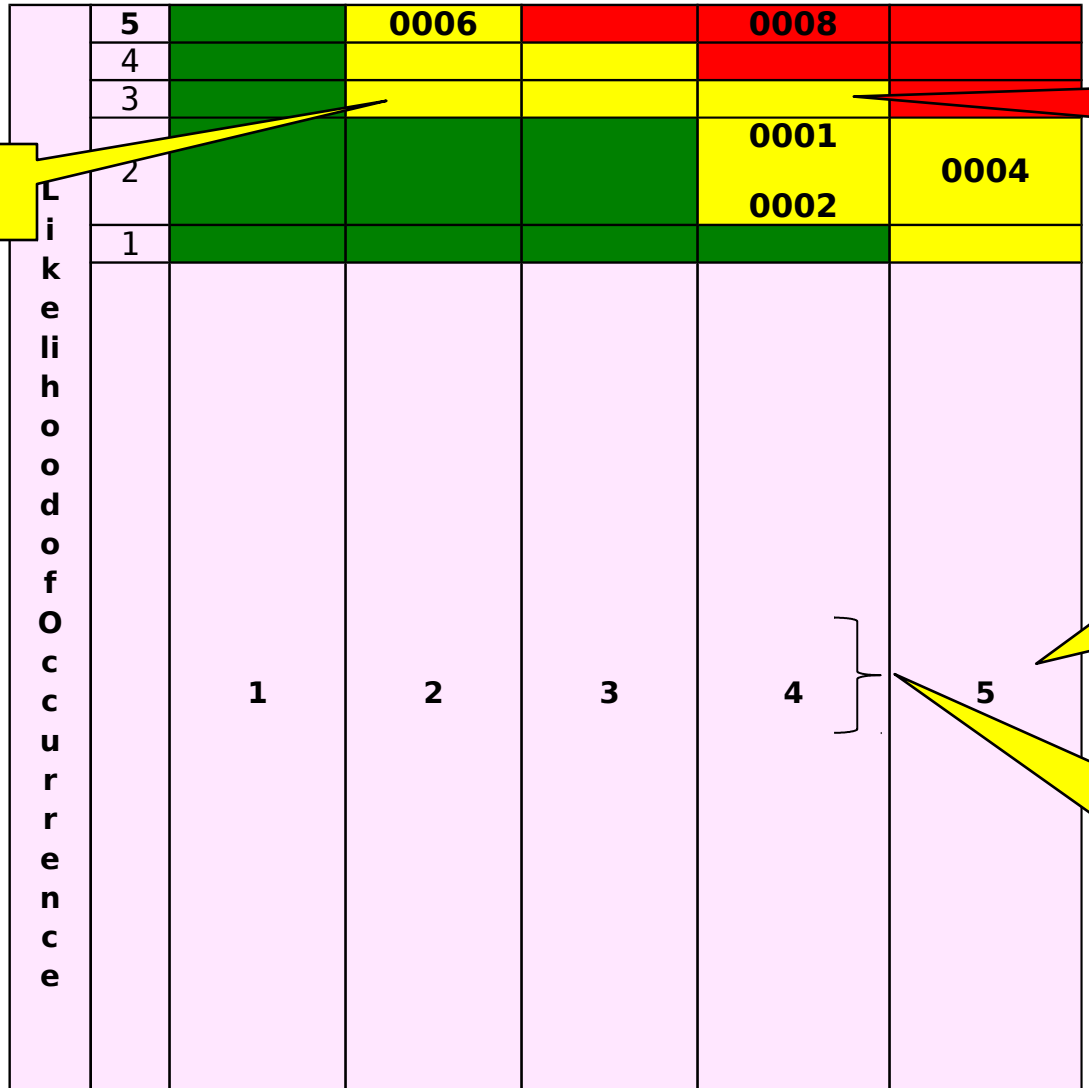
0009 – Pod documentation (S1)

0001 – Velocity Safety Interlock (E1)

0005 – ROS software reliability (S1)

0002 – PVI Mission Increment Push Button (E1)

Effectiveness COIs



0006 – Mission Planner Software Anomalies (E1)

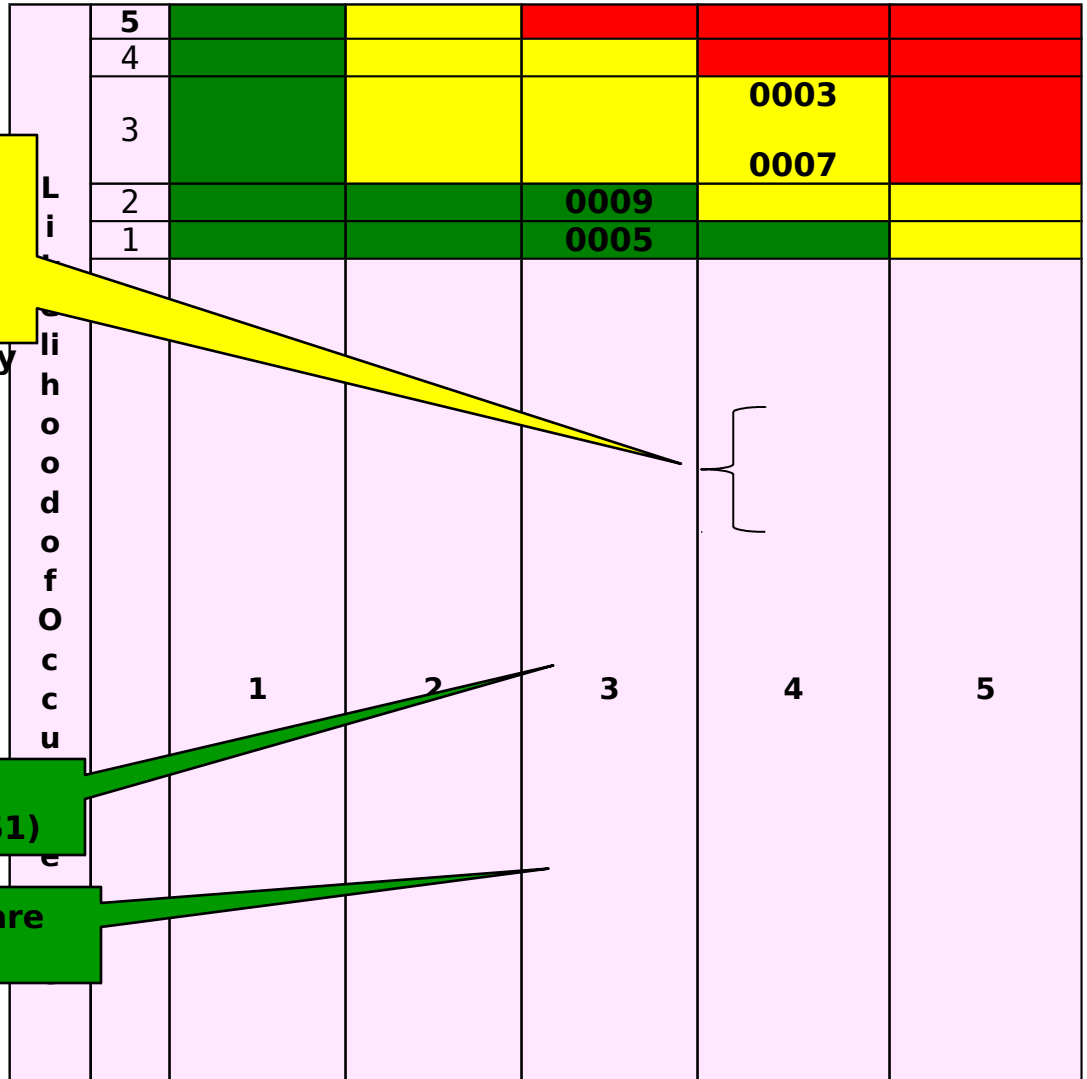
0008 – Mission File size exceeds SharePoint limits (E1)

0004 – No pilot feedback for degraded amplifiers (E1)

0001 – Velocity Safety Interlock (E1)

0002 – PVI Mission Increment Push Button (E1)

Suitability COIs



0003 – Pod locks up during operation (S1)

0007 – MFHBOMF rate and Reliability (S1)

0009 – Pod documentation (S1)

0005 – ROS software reliability (S1)